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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,045	06/12/2001	Hiroyuki Fujimura	2001-0556A	8214

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WASHINGTON, DC 20006-1021

EXAMINER
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DUONG, THANH P

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/831,045

Applicant(s)

FUJIMURA ET AL.

Examiner

Tom P. Duong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 54-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 54-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Applicants' remarks and amendments filed on March 30, 2005 have been carefully considered. Claims 1-53 have been canceled. New claims 54-57 have been added. Claims 54-57 are now pending in this application.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 54 and 56-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang (5,365,889). Tang discloses a gas reforming method comprising: gasifying combustibles in a gasification furnace to produce a gas (pyrolytic gas), the gasification furnace including a gasification chamber (30) for gasifying the combustibles to produce the gas, a char combustion chamber (32) for combusting char produced in the gasification chamber (30), and a partition wall (22) separating the gasification chamber from the char combustion chamber, the partition wall having a port (22a, 22b) for allowing a fluidized medium to be moved between the gasification chamber and the char combustion chamber (Col. 4, lines 3-11); reforming the gas produced in the

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gasification chamber using a catalyst (Col. 4, lines 12-18) so as to thereby produce a fuel gas; moving the catalyst and the fluidized medium from the gasification chamber to the char combustion chamber through the port in the partition wall (via port 22b); and the method of transferring the catalyst and the fluidized medium from the gasification chamber to the char combustion of Tang inherently recovers the catalytic activity of the catalyst in the char combustion chamber by combusting carbon deposited on the surface of the catalyst. Regarding claim 56, Tang discloses the catalyst used for reforming the gas in the gasification chamber (Col. 4, lines 12-18). Regarding claim 97, Tang discloses the same catalyst of the claimed invention; thus, the reforming catalyst inherently comprises decomposing tar and hydrocarbons contained in the gas into hydrogen and carbon monoxide.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tang '889 in view of Johnson (4,312,639). Tang '889 discloses the claimed invention except the method of recovering at least a portion of the catalyst discharged from the

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gasification chamber using a dust collector; and returning the recovered catalyst to the char combustion chamber. Johnson '639 teaches (Fig. 1) the method of recovering at least a portion of the catalyst (via line 18) discharged from the gasification chamber (15) by separating in a cyclone collector (19); and the recovered catalyst is fed to the char combustion chamber (22) to generate heat to reheats the IHTM solids (Col. 2, lines 48-52). Thus, it would have been obvious in view of Johnson '639 to one having ordinary skill in the art to modify the reforming method of Tang '889 with the method step of using a dust collector as taught by Johnson '639 to recover the catalyst to be burned in the char combustion chamber as taught by Johnson '639 in order to generate heat to reheat the IHTM solids.

### ***Response to Arguments***

Claims 1-53 have been canceled and the argument(s) are moot with respect to these claims, and the newly added claims 54-57 necessitate new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong  
June 20, 2005  
TD



Glenn Caldarola  
Supervisory Patent Examiner  
Technology Center 1700